What is claimed is:

1. A system for managing transportation operations, the system comprising:

   means for processing information related to the transportation of a good; and

   means for determining an optimal transportation solution for the good using the processed information.

2. The system of claim 1, wherein the information processing means processes order information, carrier information, and constraint information.

3. The system of claim 2, wherein the order information comprises data detailing a client's desires to ship the order, including a source and a destination for the order, a time frame for the delivery of the good, or a type of transport desired for the good.

4. The system of claim 2, wherein the carrier information comprises data related to services that transportation carriers are willing and capable to provide for the good, including a type of transport and prices for transporting the good.

5. The system of claim 2, wherein the constraint information comprises data describing the transportation solutions that are not possible, such as a time windows for transportation of the good, a maximum or minimum capacity, and business goals.

6. The system of claim 1, wherein the determining means produces multiple transportation solutions for the good, wherein each of the solutions proposes an alternative transportation movement for the good.

7. The system of claim 6, wherein the each of the solutions identifies one or more particular carriers and equipment needed to perform the transportation of the good.

8. The system of claim 1, wherein the processing means identifies a lowest cost solution for transporting the good.

9. The system of claim 8, wherein the determining means selects the lowest-cost solution for transporting the good

10. The system of claim 1 further comprising a means to receive an update regarding a status and a location of the shipment.

11. The system of claim 10, wherein the update is in an electronic format.

12. The system of claim 10 further comprising a means for storing the update.

13. The system of claim 12, wherein the update information on the status and the location can then be transmitted to a recipient of the transportation.

14. The system of claim 12, wherein the update storage means is used for external carrier performance tracking, private fleet performance tracking, and equipment tracking to improve a determination of a future transportation solution.

15. The system of claim 1 further comprising means for tendering shipment requests to carriers.

16. The system of claim 15, wherein the tendering means transmits the tenders electronically to the carriers.

17. The system of claim 15 further comprising means for monitoring acceptances of the shipment requests.

18. The system of claim 17, wherein the monitoring means electronically receives acceptances from the carriers.

19.   The system of claim 1 further comprising means to receive an accounting from a carrier for an actual cost for the transportation of the good.

20.   The system of claim 1 further comprising means to pay to a carrier an actual cost for the transportation of the good.

21.   The system of claim 1 further comprising a means to send an invoice to a client for an actual cost of the transportation of the good.

22.   The system of claim 1 further comprising means for forming a front-end interface , whereby said front-end user interface permits a transportation planning manager to interact with one or more databases to define a plurality of decision making rules.

23.   The system of claim 22, whereby there are multiple transportations, and the front-end user interfacing means permits the transportation planning manager to review and modify files for each transportation.

24.   A method for managing transportation operations, the method comprising:

   processing information related to the transportation of a good; and

   determining a transportation solution for the good using the processed information.

25.   The method of claim 24, wherein the step of processing information includes processing order information, carrier information, and constraint information.

26.   The method of claim 24, wherein the step of determining a transportation solution includes producing multiple transportation solutions, wherein

each of the solutions proposes an alternative transportation movement for the good.

27.   The method of claim 26, wherein the each of the solutions identifies one or more particular carriers and equipment needed to perform the transportation of the good.

28.   The method of claim 26, wherein the step of determining a transportation solution selects a lowest cost solution for transporting the good.

29.   The method of claim 24 further comprising the step of receiving an update regarding a status and a location of the shipment.

30.   The method of claim 29, wherein the update is in an electronic format.

31.   The method of claim 29 further comprising storing the update.

32.   The method of claim 29, wherein the update on the status and the location is transmitted to a recipient of the transportation.

33.   The method of claim 29 further comprising using the update for external carrier performance tracking, private fleet performance tracking, and equipment tracking to improve a determination of a future transportation solution.

34.   The method of claim 24 further comprising the step of tendering shipment requests to carriers.

35.   The method of claim 34, wherein the step of tendering shipment includes transmitting the tenders electronically to the carriers.

36.   The method of claim 34 further comprising the step of monitoring the carriers for one or more acceptances of the shipment requests.

37.   The method of claim 24 further comprising the step of receiving an accounting from a carrier for an actual cost for the transportation of the good.

38.   The method of claim 24 further comprising paying to a carrier an actual cost for the transportation of the good.

39.   The method of claim 24 further comprising the step of sending an invoice to a client for an actual cost of the transportation of the good.

40.   The system of claim 24 further comprising the step of forming a front-end interface, whereby the front-end user interface permits a transportation planning manager to interact with one or more databases to define a plurality of decision making algorithms

41.   The system of claim 40, whereby there are multiple transportations, and the front-end user interfacing means permits the transportation planning manager to review and modify files for each transportation.

42.   A transportation operations managing network for managing transportation operations, the network comprising:

   a planning module for planning a freight movement between a initial pick-up location and a final drop-off location;

   a management module to manage and execute the planned movement with private carrier fleets and/or one or more public carriers; and

   a cost module for accrual, accounting and subsequent payment of all shipping costs incurred.

43.   The network of claim 42, wherein the planning module uses a load building algorithm to identify and compare possible alternative freight

movements from various potential route and stop sequences, modes of transport, and carriers.

44.   The network of claim 42, wherein the planning module has decision making rules, and the decision making rules and the information used by the planning derive from business parameters that a transportation planning manager establishes for the system and from carrier availability and rate table information provided by external or fleet carriers.

45.   The network of claim 44, wherein the information provided by the transportation manager includes policies or operational requirements and the planning module performs various planning decisions before reaching an optimal transportation plan.

46.   The network of claim 42, wherein the planning module consolidates several movements into a single transportation load.

47.   The network of claim 46, wherein the planning module determines a best shipping mode for the transport load, including a identifying a carrier, an equipment type, or a route for the transport load.

48.   The network of claim 46, wherein the planning module determines and routes that meet delivery time requirements and other business constraints.

49.   The network of claim 46, wherein the planning module identifies lowest-cost alternatives to make the planned freight movements.

50.   The network of claim 49, wherein the planning module generates an efficient load consolidation and identifies a least-costly carrier and private fleet assignment within constraints imposed by orders and a transportation planning manager.

51.   The network of claim 42 further comprising the a front-end interface , the front-end user interface permitting a transportation planning manager to interact with one or more databases to define a plurality of decision making algorithms

52.   The network of claim 51, whereby there are multiple movements, and the front-end user interfacing means permits the transportation planning manager to review and modify files for each transportation.

53.   A computer program product for managing transportation operations, the computer program comprising:

a computer readable program code configured for planning a freight movement between a initial pick-up location and a final drop-off location;

a computer readable program code configured for managing and executing the planned movement with private carrier fleets and/or one or more public carriers; and

  a computer readable program code for accrual, accounting and subsequent payment of all shipping costs incurred during the transportation.

54.   A program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform method steps for managing transportation operations for a plurality of orders, the method steps comprising:

planning a freight movement between a initial pick-up location and a final drop-off location;

executing the planned freight movement with carriers; and

accounting for shipping costs incurred during execution of the planned freight movement.

74

55.   The program storage device readable by a machine according to claim 54, wherein said planning step comprises the sub-steps of generating a plurality of potential freight movements to satisfy each order and identifying the lowest cost freight movement from said plurality of potential freight movements.

56.   The program storage device readable by a machine according to claim 55, wherein said plurality of potential freight movements are of types selected from the group consisting of direct routes from origin to destination, indirect routes that include a single through-point through which said order is routed, and multiple-leg routes through that include two or more through points through which said order is routed.

57.   The program storage device readable by a machine according to claim 56, wherein said through-points are selected from set of predefined through-points for a given transportation lane.

58.   The program storage device readable by a machine according to claim 55, wherein said potential freight movements identify a proposed route and a proposed carrier for each order.

59.   The program storage device readable by a machine according to claim 54, wherein said executing step comprises the sub-steps of sending tender offers to a proposed carrier indicated by said planned freight movement, receiving acceptance/decline responses from said proposed carrier, and receiving status updates from said carrier and from locations during and after the execution of said freight movement.

60.   The program storage device readable by a machine according to claim 59, wherein tender offers are sent to said proposed carrier electronically.

61.   The program storage device readable by a machine according to claim 59, wherein acceptance/decline responses from said proposed carrier are received electronically.

62.   The program storage device readable by a machine according to claim 59, wherein said status updates are used to automatically update records contained in an order database, said database being accessible by customers, carriers, and locations to review the status of select orders.

63.   The program storage device readable by a machine according to claim 54, wherein said accounting step comprises the sub-steps of receiving invoices from carriers for executed freight movements, allocating actual costs detailed in said invoices to orders, and vouchering carrier payment.

64.   The program storage device readable by a machine according to claim 63, wherein said vouchering sub-step comprises comparing said actual costs to expected costs calculated in said planning step, matching invoices with orders, and authorizing payment of said invoice amount to a relevant carrier if said actual costs do not substantially exceed said expected costs.

65. A network of manager modules for planning, executing and paying for freight movements necessitated by a plurality of orders, said network comprising:

   a problem-solver module, said problem-solver module being adapted to accept carrier services information from potential carriers and business preferences information from a network user, said problem-solver module being further adapted to accept said orders and construct optimal freight movements from said orders

76

based upon said carrier services information and said business preferences information;

an execution module, said execution module adapted to send tender offers to carriers associated with said optimal freight movements by said problem-solver module and to schedule said optimal freight movements for execution, and further adapted to track status of freight movements during execution; and

a freight payment module, said freight payment module being adapted to allocate invoiced costs received from carriers to appropriate orders and authorize payment of said invoiced costs to a relevant carrier.

66.   The network according to claim 65, wherein said problem-solver constructs said optimal freight movements in batch runs, and wherein said batch runs comprise generating a plurality of potential freight movements to satisfy each order, and then identifying the lowest cost freight movement from said plurality of potential freight movements.

67.   The network according to claim 66, wherein said problem-solver module, said execution module, and said freight payment module each have at least one electronic interface to transfer data to or from said potential carriers.